

Contents of Volume 16

Volume 16, No. 1

State-of-the-Art

- 1 The use of artificial intelligence for printed circuit board manufacturing
A.R. Hidde and A. Prusak

Applications

- 13 B-splines formulated using circular sequences
G. Mullineux
- 19 An experimental evaluation of image processing applied to linear gauging
G. Soosalu and C.F. Osborne
- 25 Texture analysis using computer vision
S. Damodarasamy and S. Raman
- 35 Use of an expert system for quality improvement in flexible manufacturing of integrated circuits
R. Sitte and H.B. Harrison
- 39 A micrcomputer-controlled die change system
S.-G. Kuo and C.-K. Chen
- 47 Some advanced control strategies for modern machine tools
M.A. Elbestawi, L. Liu and N.K. Sinha
- 59 Towards building a knowledge-based system for production processes in a chemical plant
R. Sadananda and V.R. Kumar
- 69 The evolution and integration of management support computer systems
Z. Kierzkowski and E. Płonka-Szydłak

Short Note

- 81 Optimization method for PID controller design
Yang Yaguang, Jia Chenbing, Chen Jingping and Lu Yongzai

News from IFIP TC 5

- 87 Minutes of the 29th Meeting
- 93 Scheduled Events
- 95 List of Members

Events

- 99 Call for Papers
- 102 Announcements
- 111 Calendar

Volume 16, No. 2

State-of-the-Art

- 113 Mechanical networks model for the plane frame system
K. Wang and Ø. Bjørke

- 129 ESPRIT Basic Research Action No. 3143—FOF production theory
A. Rolstadås

Forum on Knowledge Engineering

- 141 A methodology for common-sense model development
M. Dohnal
- 159 A knowledge-based condition monitoring system for electrical machines
H.L. Poon

Applications

- 169 Equipment fault diagnosis—A neural network approach
A.K. Ray
- 179 Computer-Aided Link Analysis (CALA)
J.Th. Glass, Jr., V. Zaloom and D. Gates
- 189 Designing complex surfaces based on curve networks with irregular topology
G. Renner
- 197 Optimal cycle time in a multi-product single machine with unit load, and storage space considerations
A. Houshyar

Short Note

- 209 Computer integrated quality assurance
F. Chen

News from IFIP TC 5

- 213 Report on the 2nd Conference on CAD/CAM Technology Transfer to Latin America

Events

- 215 Call for Papers
- 219 Announcement
- 221 Calendar

Volume 16, No. 3

State-of-the-Art

- 225 Computer-aided manual workstation as an extension of the product-independent flexible factory automation concept
A.R. Hidde and B. Zöllner

Survey

- 239 Cell controllers: Analysis and comparison of three major projects
B. Boulet, B. Chhabra, G. Harhalakis, I. Minis and J.M. Proth

Applications

- 255 Physical model for robotics palletization
G. Abdou and E. Lee
- 267 Making the most of structured analysis in manufacturing information system design: Application of icons and cycle-time
C.J. Hostick, R.E. Billo and R.H. Rucker

Short Notes

- 279 Microprocessor-based substation control
M. Ahmad, M.R. Emanuele and F. Abbas
- 283 Rational cubic circular arcs and their application in CAD
G. Wang
- 289 A product evaluation and selection system for project management software
A. Rushinek and S. Rushinek

News from IFIP TC 5

- 303 Statistics of TC 5 meeting attendance for countries and WG chairmen

Events

- 305 Call for Papers
- 309 Announcement
- 311 Calendar

Volume 16, No. 4**Applications**

- 315 Real-time scheduling and control of transportation in flexible manufacturing cells
Y. Tu and A. Sorgen
- 321 CASCAM—An automated system for sculptured surface cavity machining
Y.-S. Lee and T.-C. Chang
- 343 An integrated management support and production control system for hardwood forest products
G.A. Mendoza, W. Sprouse, W.G. Luppold, P. Araman and R.J. Meimban
- 353 A dynamic approach to modeling of integrated manufacturing systems
Y.F. Zheng, A. Bandyopadhyay and J.S. Davis
- 367 A method for incorporating process nonlinearities in model predictive control calculations
Y.P. Gupta

Short Note

- 377 The impact of automation on engineers' creativity and innovation and its implications for reducing resistance to change
H. Azani and R. Khorramshahgol

News from IFIP TC 5

- 385 CAPE '91

Events

- 387 Call for Papers
- 391 Calendar

Indexes

- 395 Subject Index to Volume 16
- 397 Author Index to Volume 16
- 400 Contents Volume 16

